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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/847,771	05/01/2001	Joseph B. Rainsberger	CA920000063US1	6706

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EXAMINER	
HOLMES, MICHAEL B	

ART UNIT	PAPER NUMBER
2121	7

DATE MAILED: 04/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/847,771	RAINSBERGER ET AL.	
	Examiner	Art Unit	
	Michael B. Holmes	2121	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *(3)* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 May 2001* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *01 May 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. *09/847,771* .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

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Examiner's Detailed Office Action

1. This office action is responsive to application **09/847,771,** filed **May 01, 2001**.

2. **Claims 1-27** have been examined.

Information Disclosure Statement

3. Examiner acknowledges applicants' submission of prior art and information disclosure. Nevertheless, applicant is respectfully remind of the ongoing Duty to disclose 37 C.F.R. 1.56 all pertinent information and material pertaining to the patentability of applicant's claimed invention, by continuing to submitting in a timely manner PTO-1449, Information Disclosure Statement (IDS) with the filing of applicant's of application or thereafter.

Drawings

4. The formal drawings have been reviewed by the United States Patent & Trademark Office of Draftperson's Patent Drawings Review. Form PTO-948 has been provided.

Specification

5. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is required in correcting any errors of which applicant may become aware in the specification. Appropriate correction is required.

Claim Interpretation

6. Office personnel are to give claims their **"broadest reasonable interpretation"** in light of the supporting disclosure. *In re Morris*, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in the claim are not read into the claim. *In re Prater*, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-551(CCPA 1969). See *also *In re Zletz*, 893 F.2d 319, 321-22, 13 USPQ2d 1320, 1322(Fed. Cir. 1989) ("During patent examination the pending claims must be interpreted as broadly as their terms reasonably allow. . . . The reason is simply that during patent prosecution when claims can be amended, ambiguities should be recognized, scope and breadth of language explored, and clarification imposed. . . . An essential purpose of patent examination is to fashion claims that are precise, clear, correct, and unambiguous. Only in this way can uncertainties of claim scope be removed, as much as possible, during the administrative process."). *see* MPEP § 2106

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 21, 26, & 27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 21 employs language as "... implementing the computer system in any of the claims 1 to 20." Such language renders the claim vague and indefinite. It is unclear if you are claiming a new independent claim or a dependent claim or twenty new independent claims or twenty dependent claims. Either way the claim language is obfuscating, which renders the claims vague and indefinite. Claims 26 & 27 appear to be directed towards a new independent claim, however, examiner is not sure! If applicant were claiming a series of new independent claims. Applicant will need to pay the fee for the additional independent claims. At this point, examiner can only speculate! As aforementioned, claim language as such renders the claims not only vague and indefinite, but obfuscating.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> **(e) the invention was described in a patent** granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

10. The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

11. **Claims 1-27** are rejected under 35 U.S.C. 102(e) as being anticipated by **Bowman-Amuah (USPN 6,697,824 B1), Filed: Aug. 31, 1999; Date of Patent: Feb. 24, 2004.**

Regarding claim 1:

Bowman-Amuah teaches,

A computer system for generating recommendations, the system comprising:

a rule system for defining a set of rules, each rule having a predicate component and an action component, **[(col. 49, line 03-07 "***System Defined Rules or Matching Logic--In order to use the user profile information effectively, one must have a clear set of rules defined against which to evaluate each user. The rules are defined to match the user information with the content.***") & (col. 49, line 30-32 "***A Personalization Matching Factor (PMF) is the building block for a rule. It is the information required to perform the matching aspect of the personalization process.***") & (col. 49, line 47-49 "***PMFs should be restricted to information that can be realistically captured by the site as well as information that is reliable and accurate.***") & (col. 50, line 21-29 "***The PMFs are the building blocks for rules and matching logic. Unlike SQL extensions, there is no industry standard method for accessing `Web` content and creating rules. Some approaches are detailed below. Simple Conditional Rules--The simplest process is to define a clear-cut set of***

rules against which to evaluate the PMFs. These rules are generally simple and have only a few conditions to evaluate.")]

a set of recommendation systems, [(**col. 56, line 16-44 "*Recommendation functions may take up multiple formats*.** *The most common format are simple services to allow the site's users to provide direct feedback, positive or negative, and recommendations about the content or products on the site. By providing these services, the site may create a community where users can interact with each other, furthering the site's worth. For example, a sict could allow for users to submit book reviews. The information is then available for consumption by the general public. While the technology to implement this is rather simple, the process may prove to be a little more complex. The process includes receiving input, reviewing recommendations, filtering and approving content, and then posting the review or recommendations. The lack of a filtration or review process could be devastating to a site.* ***Another type of recommendation service makes suggestions to its user base. These services can range from simple to complex.*** *A more complex recommendation service may utilize collaborative filtering. Collaborative filtering is the technique of using content or product ratings from the site's user base to predict the interest other potential users will have in the content or products. Correlation algorithms use the profile information, history, and/or input preferences to construct a correlation group of users whose ratings are effective predictors for the new user. Prediction algorithms then use the ratings and profile information of the users to make predictions of the content they most likely will find interesting. (Note: The collaborative filtering technique could be implemented within the personalization system.)*")] and

a defined interface for accessing each of the recommendation systems in said set of recommendation systems to permit a one of the recommendation systems to be invoked from an action component in a rule in the set of rules in the rule system. **[FIG. 19; (col. 38, line 17-67** "*FIG. 19 illustrates a simple personalization process 1900. Most personalization techniques utilize this process in some fashion or another. The complexity and the details of the process may vary based on the technique. The following is a description of the different personalization process components. Identification 1902--The first step is to identify the user. This enables the rest of the personalization process components. One must know whom one is talking to, in order to personalize "personalize" the experience. Information Capture 1904—The next step is to collect information about the user. This may be done with implicit or explicit techniques at the direction of the user, or controlled by the system. The goal is to capture information that will assist in determining and delivering a valuable interaction. Analysis and Refinement--Once the data is captured, it may need to be refined before it is usable. The system needs the ability to analyze the data and draw insight or conclusions about the information and interaction. The refinement may transform the data from questionnaires or implicit observation to be usable with the matching rules and content indexing strategy.* ***Match 1906--When the personalization strategy is developed, a base of `Personalization Matching Factor` and rules (based on who, what, where, when, why . . .) are created. These matching factors and rules are necessary to determine the content, navigation, and layout appropriate for the user****. Merge and Delivery 1908--Upon determining the appropriate information and format, the information needs to be merged and deliverer to the user. This may be through an interactive interface or through a push mechanism. Personalization Optimization 1910--Personalization is a complex*

and evolutionary process. The ability to gather metrics and measurements on the personalization process in order to perform rule or data translations, model tuning and reporting is essential to maximizing the concept's potential. Personalization will continue to be adopted by the market place. ***Numerous sites have incorporated personalization techniques into their sites and the marketplace is full of independent software vendors creating personalization related software.*** *Each enterprise must assess their personalization opportunities from their own perspective and develop their own personalization strategy.* ***The personalization strategy must be integrated with the enterprise's existing customer relationship, technology and eCommerce strategies.***")]

Regarding claim 2:

Bowman-Amuah teaches,

The computer system of claim 1 in which the set of recommendation systems comprises one or more empirical recommendation systems. **[(col. 56, line 16-44 "*Recommendation functions may take up multiple formats.* *The most common format are simple services to allow the site's users to provide direct feedback, positive or negative, and recommendations about the content or products on the site. By providing these services, the site may create a community where users can interact with each other, furthering the site's worth. For example, a sict could allow for users to submit book reviews. The information is then available for consumption by the general public. While the technology to implement this is rather simple, the process may prove to be a little more complex. The process includes receiving input, reviewing recommendations, filtering and approving content, and then posting the review or recommendations. The lack of a filtration or review process could be devastating to a site.* ***Another type of recommendation***

service makes suggestions to its user base. These services can range from simple to complex. *A more complex recommendation service may utilize collaborative filtering. Collaborative filtering is the technique of using content or product ratings from the site's user base to predict the interest other potential users will have in the content or products. Correlation algorithms use the profile information, history, and/or input preferences to construct a correlation group of users whose ratings are effective predictors for the new user. Prediction algorithms then use the ratings and profile information of the users to make predictions of the content they most likely will find interesting. (Note: The collaborative filtering technique could be implemented within the personalization system.).*") **& (col. 57, line 46-61 "*Cross Selling and Up Selling Cross Selling and Up Selling are similar to recommendation services.*** *Cross selling uses some knowledge of the consumer to suggest complimentary or similar products in which the consumer may be interested--"Would you like fries with that?" Up selling is an effort to sell more of the same thing, or a better version of what the consumer may currently be considering--"Would you like that Super Sized?" Cross selling and up selling are considered an application or service enabled by complex personalization. Although very important from a marketing perspective, once the underlying services for complex personalization are in place, many of the demand generating applications are now possible. Cross selling or up selling could be implemented by product relationships in a database.*")]

Regarding claim 3:

Bowman-Amuah teaches,

The computer system of claim 2, further comprising a set of connections, each connection

comprising a means for passing data from the rule system to a one of the empirical recommendation systems for processing by the empirical recommendation system. **[FIG. 19; (col. 38, line 17-67 "***FIG. 19 illustrates a simple personalization process 1900. Most personalization techniques utilize this process in some fashion or another. The complexity and the details of the process may vary based on the technique. The following is a description of the different personalization process components. Identification 1902--The first step is to identify the user. This enables the rest of the personalization process components. One must know whom one is talking to, in order to personalize "personalize" the experience. Information Capture 1904—The next step is to collect information about the user. This may be done with implicit or explicit techniques at the direction of the user, or controlled by the system. The goal is to capture information that will assist in determining and delivering a valuable interaction. Analysis and Refinement--Once the data is captured, it may need to be refined before it is usable. The system needs the ability to analyze the data and draw insight or conclusions about the information and interaction. The refinement may transform the data from questionnaires or implicit observation to be usable with the matching rules and content indexing strategy.* ***Match 1906--When the personalization strategy is developed, a base of `Personalization Matching Factor` and rules (based on who, what, where, when, why . . .) are created. These matching factors and rules are necessary to determine the content, navigation, and layout appropriate for the user****. Merge and Delivery 1908--Upon determining the appropriate information and format, the information needs to be merged and deliverer to the user. This may be through an interactive interface or through a push mechanism. Personalization Optimization 1910--Personalization is a complex and evolutionary process. The ability to gather metrics and measurements on the personalization*

process in order to perform rule or data translations, model tuning and reporting is essential to maximizing the concept's potential. Personalization will continue to be adopted by the market place. ***Numerous sites have incorporated personalization techniques into their sites and the marketplace is full of independent software vendors creating personalization related software.*** *Each enterprise must assess their personalization opportunities from their own perspective and develop their own personalization strategy.* ***The personalization strategy must be integrated with the enterprise's existing customer relationship, technology and eCommerce strategies.***")]

Regarding claim 4:

Bowman-Amuah teaches,

The computer system of claim 3 in which the means for passing data from the rule system to the empirical recommendation system comprises an event-listener connection. **[(col. 52, line 22-34** "*Canned Queries--A system of canned queries allows the user to choose only certain actions that have been pre-determined for the user.* ***The queries only give the user the options listed, and do not change over time.*** *The examples above are mainly site controlled. The site either has a pre-defined rule or matching logic that will execute. The site is responsible for determining what has been learned from the interaction, what is enabled based on the knowledge gained, what additional information will provide additional insight.* ***Where possible, the users should be allowed to define the rules and matching logic or the content they wish to view. Provide the user the structure to create a rule or define a query.***") **& (col. 37, line 01-24** "*Most of the personalization techniques described above are interactive personalization techniques. Content and information is personalized for the user in real time--while the user*

interacts with the application or site. Some forms of personalization can also be used in a non-interactive, or "push" mode "Push" (or "server-push") is where the delivery of information to a user on the Web is triggered and initiated by the information server rather than by the user. In fact, the information pushed from a server to a user actually comes as the result of a subscription-like standing request created by the user and either stored on the server or on their local machine. This program captures and stores the user's profile locally and then periodically initiates requests for information on the user's behalf from the server.")]

Regarding claim 5:

Bowman-Amuah teaches,

The computer system of claim 4 in which the rule system comprises rules for receiving events, rules for filtering events and rules for forwarding events to a one of the empirical recommendation systems. **[(col. 52, line 01-21** "*Inductive reasoning/Collaborative Filtering—* ***Firefly defines collaborative filtering as a technology that emulate the social processes of people making recommendations based on an understanding of one another's preferences. Individual agents track and choose items based on individuals' tastes and preferences****. The core technology personalizes both the delivery of content and the knowledge of related people within a defined networked environment, or "taste space." Firefly tools correlate individual users' preferences for specific items based on either explicit or implicit ratings of comparable items in other situations. These ratings may be stored entirely within a single Web site or compiled on the fly from information assembled from individual clients and shared servers. Collaborative Filtering assesses a single set of user preferences to identify an individual*

community of interest. ***Collaborative Filtering correlates the tastes on an individual user with the preferences of comparable users to develop a list of personalized recommendations****. It is some times referred to as People-to-people matching, and is aimed at automating word-of-mouth kind of information.*")]

Regarding claim 6:

Bowman-Amuah teaches,

The computer system of claim 2 in which the rule system comprises rules for preprocessing data prior to accessing a one of the empirical recommendation systems. **[(col. 43, line 40 to col. 44, line 20 "***The information collected about a user is considered the user's profile. Logically, this is everything the enterprise (site) knows about the user. Attributes from the user's profile will be the input to the personalization process and the driving data for the different personalization techniques. A profiling strategy should be developed by the enterprise that addresses what information to capture, the sources of this information, the methods to capture it, and how this information will be stored. If the customer is to be treated the same at all points of interaction, a common profile should be developed that is shared by all departments and applications. Determining what information to capture or what attributes make up the user's profile can be a difficult process. In most cases, the profile will be based on the enterprise's personalization strategy, the personalization techniques to be implemented, the data required to implement them and a mix of any user information deemed usable that can be captured. In general, the site needs to capture the information required to perform the analysis aspect of the personalization process for each of the personalization technique to be implemented. This*

information might include: Basic user information such as name and address. User demographics, psychographics, and sociographics such as gender, height or age. User transaction or enterprise data such as purchase history. User's specified configuration information such as the attribute's of the user's personal home page. Interaction information such as content viewed or duration of content displayed to the user. Each personalization technique may require a different set of attributes from the user's profile. The information needed to deliver a `Site Controlled Contextual Inferences` will be very different than the information needed for `pre-filled forms.` ***Site Controlled Contextual Inferences Content Filtering requires the creation of rules and the necessary user information that satisfy the rules or `Contextual Inferences`.*** *(The information required to satisfy a rule is referred to as Personalization Matching Factors (PMFs) and will be discussed in more detail in the Matching Logic component.)* ***For instance, the rule may be based on gender, age, purchase history or customer demographics. On the other hand, the information that is used to Pre-Fill forms may be a different set of user profile attributes. For example, this might be name, address, shipping information and payment information. Another personalization technique may use the same set of user information or may require another subset of user data.*****")]**

Regarding claim 7:

Bowman-Amuah teaches,

The computer system of claim 2 in which the rule system comprises rules for post-processing data following the access of a one of the empirical recommendation systems. **[FIG. 19; (col. 38, line 33-56 "*Analysis and Refinement--Once the data is captured, it may need to be refined***

before it is usable. The system needs the ability to analyze the data and draw insight or conclusions about the information and interaction. The refinement may transform the data from questionnaires or implicit observation to be usable with the matching rules and content indexing strategy. *Match 1906--When the personalization strategy is developed, a base of `Personalization Matching Factor` and rules (based on who, what, where, when, why . . .) are created. These matching factors and rules are necessary to determine the content, navigation, and layout appropriate for the user. Merge and Delivery 1908--Upon determining the appropriate information and format, the information needs to be merged and deliverer to the user. This may be through an interactive interface or through a push mechanism. Personalization Optimization 1910--Personalization is a complex and evolutionary process. The ability to gather metrics and measurements on the personalization process in order to perform rule or data translations, model tuning and reporting is essential to maximizing the concept's potential.*"**)]**

Regarding claim 8:

Bowman-Amuah teaches,

The computer system of claim 2 in which the defined interface comprises a definition of means for obtaining recommendations based on a specified user from the one or more empirical recommendation systems. **[FIG. 19 (col. 56, line 16-30 "***Recommendation functions may take up multiple formats.* ***The most common format are simple services to allow the site's users to provide direct feedback, positive or negative, and recommendations about the content or products on the site.*** *By providing these services, the site may create a community where*

users can interact with each other, furthering the site's worth. For example, a site could allow for users to submit book reviews. The information is then available for consumption by the general public. While the technology to implement this is rather simple, the process may prove to be a little more complex. The process includes receiving input, reviewing recommendations, filtering and approving content, and then posting the review or recommendations. The lack of a filtration or review process could be devastating to a site.")]

Regarding claim 9:

Bowman-Amuah teaches,

The computer system of claim 2 in which the defined interface comprises a definition of means for the one or more empirical recommendation systems to prioritize items based on a specified user. **[FIG. 19 (col. 60, line 60 to col. 61, line 21** "*Some sort of merchandise collection facility is needed. All items of interest should be gathered and organized so they can be reviewed prior to purchase. The most common approaches are an order form or* ***a metaphor such as a shopping cart or basket. Shopping Cart Metaphor--The user is enabled to select items and add them to his online shopping cart. The items selected will be tracked. The user has the ability to add or remove items, review item details, and check out and total the items. In addition, the shopping cart should allow the user to exit and reenter the store without losing the items he has selected.*** *Independent of the medium, the following capabilities should be considered: Order list and information should be consistent with the merchandising mechanism. If possible, display the merchandise in the same format so it is as appealing as when they order it. The customer should be able to save and recall items, pricing, and other order details for the current and previous*

*orders. **Allow for additional sales and impulse buying. The checkout process is ideal for cross selling or any other form of impulse buying. These capabilities should be integrated to the merchandise selection facility.** Allow for the ability to review, update or even cancel the order at any point of the selection purchasing flow. The customer should not feel confined or forced to make the purchase.*") **& (col. 57, line 46-61 "***Cross Selling and Up Selling Cross Selling and Up Selling are similar to recommendation services. Cross selling uses some knowledge of the consumer to suggest complimentary or similar products in which the consumer may be interested--"Would you like fries with that?" Up selling is an effort to sell more of the same thing, or a better version of what the consumer may currently be considering--"Would you like that Super Sized?" Cross selling and up selling are considered an application or service enabled by complex personalization. Although very important from a marketing perspective, once the underlying services for complex personalization are in place, many of the demand generating applications are now possible. Cross selling or up selling could be implemented by product relationships in a database.*")]

Regarding claim 10:

Bowman-Amuah teaches,

The computer system of claim 3 in which the recommendations of the computer system are provided to a web-based display system for the display of pages to a shopper in an electronic commerce site maintained for an on-line store. **[FIG. 12 (col. 28, line 38-64 "***FIG. 12 illustrates a flowchart for a method 1200 for automated performance of services on a network. When a request for a service is received over a network in operation 1202, information about a product*

on the network is searched in operation 1204 in order to perform the service. Data including the price of the product is selected from the information on the network and the service is performed utilizing the data in operations 1206 and 1208. The service may include making suggestions based on a user's profile and history. The service requested may also include retrieval of data. Thirdly, the service requested may include a product comparison. As an option, the data may further include detailed product attributes. As another option, the services of other agents may also be used to perform the service. On the Internet, an agent 1300 (also called an intelligent agent) is a program that gathers information or performs some other service without the immediate of a user. See FIGS. 10 and 13. Typically, an agent, using parameters provided by the user, searches all or some part of the Internet, gathers the requested information, and presents it back to the requesting user. Intelligent external agent technology will continue to grow as the eCommerce market develops. As the market saturates with products and information, the need for techniques or agents to filter this information will grow.")]

Regarding claim 11:

Bowman-Amuah teaches,

The computer system of claim 10 in which the defined interface defines a means to make available to the one or more empirical recommendation systems the following:

a) data uniquely identifying the shopper, **[(col. 48, line 63-64 "***User Profile Information—This information consists of what is known about the user.*")]

b) data uniquely identifying the store, **[(col. 32, line 38-43 "***A common concept used are electronic coupons or other types of discounts. The customers may have earned or acquired a*

coupon or other form of discount earlier in the interaction with the site. The coupon, usually stored on the user's machine, may be applied to the purchased products.")] and

c) a specified maximum number of recommendations. **[(col. 37, line 36-49 "***Information Delivery. A user subscribes to receive information on a scheduled basis. The information that is pushed is either determined through user selection--the user selects the subjects and type of information that they wish to receive, or the site determines what information the user may be interested in receiving based on their profile information.* ***For example, at an investment web site, users are allowed to subscribe to investment information feeds. The user decided to receive a daily feed of the stock quotes for the commodities they hold. The site pushes this information and additionally pushes news articles and stock recommendations based on the user's portfolio holdings.***")]

Regarding claim 12:

Bowman-Amuah teaches,

The computer system of claim 11 in which the defined interface defines a means to make available to selected ones of the one or more empirical recommendation systems one or more of the following:

a) a set of initial recommendations, **[(col. 56, line 16-30 "***Recommendation functions may take up multiple formats. The most common format are simple services to allow the site's users to provide direct feedback, positive or negative, and recommendations about the content or products on the site. By providing these services, the site may create a community where users can interact with each other, furthering the site's worth. For example, a site could allow for*

users to submit book reviews. The information is then available for consumption by the general public. While the technology to implement this is rather simple, the process may prove to be a little more complex. The process includes receiving input, ***reviewing recommendations****, filtering and approving content, and then posting the review or recommendations. The lack of a filtration or review process could be devastating to a site.*")]

b) a set of category information for constraining the recommendations to be returned, **[(col. 56, line 16-30** "*Recommendation functions may take up multiple formats. The most common format are simple services to allow the site's users to provide direct feedback, positive or negative, and recommendations about the content or products on the site. By providing these services, the site may create a community where users can interact with each other, furthering the site's worth. For example, a site could allow for users to submit book reviews. The information is then available for consumption by the general public. While the technology to implement this is rather simple, the process may prove to be a little more complex. The process includes receiving input, reviewing recommendations,* ***filtering and approving content****, and then posting the review or recommendations.* ***The lack of a filtration or review process could be devastating to a site.***")]

and

c) information about the environment from which the rule system was invoked. **[(col. 56, line 16-30** "***Recommendation functions may take up multiple formats. The most common format are simple services to allow the site's users to provide direct feedback, positive or negative, and recommendations about the content or products on the site. By providing these services, the site may create a community where users can interact with each other, furthering the site's worth****. For example, a site could allow for users to submit book reviews. The information is then*

available for consumption by the general public. While the technology to implement this is rather simple, the process may prove to be a little more complex. The process includes receiving input, ***reviewing recommendations****, filtering and approving content, and then posting the review or recommendations. The lack of a filtration or review process could be devastating to a site.*")]

Regarding claim 13:

Bowman-Amuah teaches,

A computer system for generating recommendations for personalization of an e-commerce site, the system comprising,

a rule system for defining a set of rules, each rule having a predicate component and an action component, **[(col. 49, line 03-07** "*System Defined Rules or Matching Logic--In order to use the user profile information effectively, one must have a clear set of rules defined against which to evaluate each user. The rules are defined to match the user information with the content.*") **& (col. 49, line 30-32** "*A Personalization Matching Factor (PMF) is the building block for a rule. It is the information required to perform the matching aspect of the personalization process.*") **& (col. 49, line 47-49** "*PMFs should be restricted to information that can be realistically captured by the site as well as information that is reliable and accurate.*") **& (col. 50, line 21-29** "*The PMFs are the building blocks for rules and matching logic. Unlike SQL extensions, there is no industry standard method for accessing `Web` content and creating rules. Some approaches are detailed below. Simple Conditional Rules--The simplest process is to define a clear-cut set of rules against which to evaluate the PMFs. These rules are generally simple and have only a few conditions to evaluate.*")]

a set of empirical recommendation systems, [**(col. 34, line 02-27** "*Personalization is the continuous process of collecting, analyzing, and using information about the end-user in order to improve the productivity and value of their interaction with the organization.* ***The purpose of personalization is to interact with the customer/user with the hopes of establishing and building a relationship, increasing sales by catering to the individual customer's needs, cross selling or up selling, and enticing users to return to the site.*** *Unlike any other broadcast medium, the Internet was designed for two-way interaction, hence providing the ability to narrow-cast or customize the interaction to the individual user. Generating demand for a site's products or services and building customer relationships are crucial for any eCommerce implementation. This is even more evident in seller-centric implementations and hype or marketing driven implementations. The customization can occur in many forms. The services and infrastructure can vary drastically depending on the extent of personalization desired. Each eCommerce package may approach personalization using different services and infrastructure. The enterprise complexity of the personalization approach will drive the architecture components and application required to implement and deliver this strategy. It is critical for the enterprise success to understand how the personalization strategy will affect the entire enterprise.*") **& (col. 57, line 46-61** "*Cross Selling and Up Selling Cross Selling and Up Selling are similar to recommendation services. Cross selling uses some knowledge of the consumer to suggest complimentary or similar products in which the consumer may be interested--"Would you like fries with that?" Up selling is an effort to sell more of the same thing, or a better version of what the consumer may currently be considering--"Would you like that Super Sized?" Cross selling and up selling are considered an application or service enabled by complex*

personalization. Although very important from a marketing perspective, once the underlying services for complex personalization are in place, many of the demand generating applications are now possible. Cross selling or up selling could be implemented by product relationships in a database.")]

a defined interface for accessing each of the empirical recommendation systems in said set of empirical recommendation systems to permit a one of the empirical recommendation systems to be invoked from an action component in a rule in the set of rules in the rule system, and

a set of event-listener connections, each connection comprising a means for passing data from the rule system to the empirical recommendation system for processing by the empirical recommendation system. **[FIG. 16; FIG. 17; & FIG. 18; (col. 33, line 10-67 "***FIG. 16 illustrates a flowchart for a method 1600 for interacting with a user over a network for personalizing a website. A user is identified and information about the user is collected in operations 1602 and 1604. A profile of the user is built based on the collected information and a plurality of different contents are managed in operations 1606 and 1608. The profile and the contents are analyzed in order to match attributes of the profile of the user and attributes of the contents in operation 1610. The contents which have attributes that match the attributes of the profile of the user are then selected and delivered to the user in operations 1612 and 1614. The user is allowed to manually select which of the delivered contents are depicted on a display in operation 1616. The user is also allowed in operation 1618 to selectively position the delivered contents on the display. The analysis of the profile may occur in real time. The user may also be identified by using a cookie, receiving user input, and digital certificates. As an option, a time when the user last viewed the contents may also be identified with portions of the contents that*

have been modified or added since the time when the user last viewed the contents being indicated. As another option, the user may also be allowed to rate the contents. Further, a potential customer may be selected from a plurality of users and an act may be performed to entice the potential customer to become a real customer. Also, an activity may further be conducted to retain a current customer and a demand generating application may be provided. Enterprises must respond by capitalizing on the new potential the interactive mediums offer; to reach, communicate, and interact with customers. The way enterprises interact with their customers continues to change due to demand for increased convenience, better access, higher levels of interactivity, and faster fulfillment. As a result, more customer interactions are done through electronic means (e.g., home PCs, automated teller machines, automated voice response, 800-numbers, and the Internet). Regardless of the particular medium the customer chooses, it is clear future communications will be increasingly technology-enabled and information-intensive and will provide the foundation for a continuous, two-way dialogue with customers. The benefits of new media and communications technologies to interact are numerous, enabling enterprises to provide better customer service, to capture valuable information about customer behavior and product use, and to allow greater differentiation at the point of contact. However, most next-generation customer interfaces continue to be designed to be high tech rather than high touch. The Relationship Management section of the Ecaf, shown in FIG. 17, covers applications and architecture components geared toward capitalizing on the interaction with the customer. Within relationship management, there are two main driving forces: Interactive Marketing 1702 and Personalization 1700.")] **Examiner's note:** There is another bit of excellent text that anticipates this portion of the limitation i.e., because it is very

much like the process that is implemented by Amazon when you access a folder on their website **[(col. 34, line 49 to col. 35, line 03** "*There is currently a lot of hype and press attention centered on the idea of "personalization". Given the wide variety of products and ideas being labeled "personalization", it is apparent that a variety of different personalization delivery techniques and technologies are evolving. As with most emerging concepts, the initial techniques cover a wide range of complexity in both infrastructure and approach. Most personalized sites use a combination of techniques. Samplings of personalization techniques are presented below: User Acknowledgement This is acknowledging the user or greeting them with a personalized statement. The statement may be a simple `Welcome back<user name>!` message or it may be more complex, drawing on information from the last interaction. In this approach, the application or web site's user interface is customized for the individual. The actual page layout or page design is altered based on the individual interacting with the system. This category can be sub-divided based on who (the site or the user) controls how the interface is altered.*"**)]**

Regarding claim 14:

Bowman-Amuah teaches,

The computer system of claim 13 in which the rule system comprises rules for preprocessing data prior to accessing a one of the empirical recommendation systems. **[(col. 43, line 40 to col. 44, line 20** "*The information collected about a user is considered the user's profile. Logically, this is everything the enterprise (site) knows about the user. Attributes from the user's profile will be the input to the personalization process and the driving data for the different*

*personalization techniques. A profiling strategy should be developed by the enterprise that addresses what information to capture, the sources of this information, the methods to capture it, and how this information will be stored. If the customer is to be treated the same at all points of interaction, a common profile should be developed that is shared by all departments and applications. Determining what information to capture or what attributes make up the user's profile can be a difficult process. In most cases, the profile will be based on the enterprise's personalization strategy, the personalization techniques to be implemented, the data required to implement them and a mix of any user information deemed usable that can be captured. In general, the site needs to capture the information required to perform the analysis aspect of the personalization process for each of the personalization technique to be implemented. This information might include: Basic user information such as name and address. User demographics, psychographics, and sociographics such as gender, height or age. User transaction or enterprise data such as purchase history. User's specified configuration information such as the attribute's of the user's personal home page. Interaction information such as content viewed or duration of content displayed to the user. Each personalization technique may require a different set of attributes from the user's profile. The information needed to deliver a `Site Controlled Contextual Inferences` will be very different than the information needed for `pre-filled forms.` **Site Controlled Contextual Inferences Content Filtering requires the creation of rules and the necessary user information that satisfy the rules or `Contextual Inferences`.** (The information required to satisfy a rule is referred to as Personalization Matching Factors (PMFs) and will be discussed in more detail in the Matching Logic component.)* ***For instance, the rule may be based on gender, age, purchase history or***

***customer demographics. On the other hand, the information that is used to Pre-Fill forms may be a different set of user profile attributes. For example, this might be name, address, shipping information and payment information. Another personalization technique may use the same set of user information or may require another subset of user data.*")]**

Regarding claim 15:

Bowman-Amuah teaches,

The computer system of claim 13 in which the rule system comprises rules for post-processing data following the access of a one of the empirical recommendation systems. **[FIG. 19; (col. 38, line 33-56 "*Analysis and Refinement*--*Once the data is captured, it may need to be refined before it is usable. The system needs the ability to analyze the data and draw insight or conclusions about the information and interaction. The refinement may transform the data from questionnaires or implicit observation to be usable with the matching rules and content indexing strategy. Match 1906--When the personalization strategy is developed, a base of `Personalization Matching Factor` and rules (based on who, what, where, when, why . . .) are created. These matching factors and rules are necessary to determine the content, navigation, and layout appropriate for the user. Merge and Delivery 1908--Upon determining the appropriate information and format, the information needs to be merged and deliverer to the user. This may be through an interactive interface or through a push mechanism. Personalization Optimization 1910--Personalization is a complex and evolutionary process. The ability to gather metrics and measurements on the personalization process in order to perform rule or data translations, model tuning and reporting is essential to maximizing the concept's*

potential.")]

Regarding claim 16:

Bowman-Amuah teaches,

The computer system of claim 13 in which the defined interface comprises a definition of means for obtaining recommendations from the set of empirical recommendation systems based on a specified user accessing the e-commerce site. **[FIG. 19 (col. 56, line 16-30 "***Recommendation functions may take up multiple formats.* ***The most common format are simple services to allow the site's users to provide direct feedback, positive or negative, and recommendations about the content or products on the site****. By providing these services, the site may create a community where users can interact with each other, furthering the site's worth. For example, a site could allow for users to submit book reviews. The information is then available for consumption by the general public. While the technology to implement this is rather simple, the process may prove to be a little more complex. The process includes receiving input, reviewing recommendations, filtering and approving content, and then posting the review or recommendations. The lack of a filtration or review process could be devastating to a site.*")]

Regarding claim 17:

Bowman-Amuah teaches,

The computer system of claim 13 in which the defined interface comprises a definition of means for the set of empirical recommendation systems to prioritize items based on a specified user

accessing the e-commerce site. **[FIG. 19 (col. 60, line 60 to col. 61, line 21** "*Some sort of merchandise collection facility is needed. All items of interest should be gathered and organized so they can be reviewed prior to purchase. The most common approaches are an order form or* ***a metaphor such as a shopping cart or basket. Shopping Cart Metaphor--The user is enabled to select items and add them to his online shopping cart. The items selected will be tracked. The user has the ability to add or remove items, review item details, and check out and total the items. In addition, the shopping cart should allow the user to exit and reenter the store without losing the items he has selected****. Independent of the medium, the following capabilities should be considered: Order list and information should be consistent with the merchandising mechanism. If possible, display the merchandise in the same format so it is as appealing as when they order it. The customer should be able to save and recall items, pricing, and other order details for the current and previous orders.* ***Allow for additional sales and impulse buying. The checkout process is ideal for cross selling or any other form of impulse buying. These capabilities should be integrated to the merchandise selection facility****. Allow for the ability to review, update or even cancel the order at any point of the selection purchasing flow. The customer should not feel confined or forced to make the purchase.*") **& (col. 57, line 46-61** "*Cross Selling and Up Selling Cross Selling and Up Selling are similar to recommendation services. Cross selling uses some knowledge of the consumer to suggest complimentary or similar products in which the consumer may be interested--"Would you like fries with that?" Up selling is an effort to sell more of the same thing, or a better version of what the consumer may currently be considering--"Would you like that Super Sized?" Cross selling and up selling are considered an application or service enabled by complex personalization. Although very important from a*

marketing perspective, once the underlying services for complex personalization are in place, many of the demand generating applications are now possible. Cross selling or up selling could be implemented by product relationships in a database.")]

Regarding claim 18:

Bowman-Amuah teaches,

The computer system of claim 13 in which the recommendations of the computer system are provided to a web-based display system for the display of pages to a user accessing the e-commerce site. **[FIG. 12 (col. 28, line 38-64 "***FIG. 12 illustrates a flowchart for a method 1200 for automated performance of services on a network. When a request for a service is received over a network in operation 1202, information about a product on the network is searched in operation 1204 in order to perform the service. Data including the price of the product is selected from the information on the network and the service is performed utilizing the data in operations 1206 and 1208. The service may include making suggestions based on a user's profile and history. The service requested may also include retrieval of data. Thirdly, the service requested may include a product comparison. As an option, the data may further include detailed product attributes. As another option, the services of other agents may also be used to perform the service. On the Internet, an agent 1300 (also called an intelligent agent) is a program that gathers information or performs some other service without the immediate of a user. See FIGS. 10 and 13. Typically, an agent, using parameters provided by the user, searches all or some part of the Internet, gathers the requested information, and presents it back to the requesting user. Intelligent external agent technology will continue to grow as the*

eCommerce market develops. As the market saturates with products and information, the need for techniques or agents to filter this information will grow.")]

Regarding claim 19:

Bowman-Amuah teaches,

The computer system of claim 13 in which the defined interface defines a means to make available to the set of empirical recommendation systems the following:

a) data uniquely identifying a consumer accessing the e-commerce site, **[(col. 48, line 63-64** "*User Profile Information--This information consists of what is known about the user.*")]

b) data uniquely identifying the e-commerce site, **[(col. 32, line 38-43** "*A common concept used are electronic coupons or other types of discounts. The customers may have earned or acquired a coupon or other form of discount earlier in the interaction with the site. The coupon, usually stored on the user's machine, may be applied to the purchased products.*")] and

c) a specified maximum number of recommendations. **[(col. 37, line 36-49** "*Information Delivery. A user subscribes to receive information on a scheduled basis. The information that is pushed is either determined through user selection--the user selects the subjects and type of information that they wish to receive, or the site determines what information the user may be interested in receiving based on their profile information.* ***For example, at an investment web site, users are allowed to subscribe to investment information feeds. The user decided to receive a daily feed of the stock quotes for the commodities they hold. The site pushes this information and additionally pushes news articles and stock recommendations based on the user's portfolio holdings.***")]

Regarding claim 20:

Bowman-Amuah teaches,

The computer system of claim 19 in which the defined interface defines a means to make available to selected ones of the set of empirical recommendation systems one or more of the following:

a) a set of initial recommendations, **[(col. 56, line 16-30 "***Recommendation functions may take up multiple formats. The most common format are simple services to allow the site's users to provide direct feedback, positive or negative, and recommendations about the content or products on the site. By providing these services, the site may create a community where users can interact with each other, furthering the site's worth. For example, a site could allow for users to submit book reviews. The information is then available for consumption by the general public. While the technology to implement this is rather simple, the process may prove to be a little more complex. The process includes receiving input,* ***reviewing recommendations****, filtering and approving content, and then posting the review or recommendations. The lack of a filtration or review process could be devastating to a site.***")]**

b) a set of category information for constraining the recommendations to be returned, **[(col. 56, line 16-30 "***Recommendation functions may take up multiple formats. The most common format are simple services to allow the site's users to provide direct feedback, positive or negative, and recommendations about the content or products on the site. By providing these services, the site may create a community where users can interact with each other, furthering the site's worth. For example, a site could allow for users to submit book reviews. The information is then available for consumption by the general public. While the technology to implement this is rather*

simple, the process may prove to be a little more complex. The process includes receiving input, reviewing recommendations, ***filtering and approving content****, and then posting the review or recommendations.* ***The lack of a filtration or review process could be devastating to a site.***")]

and

c) information about the environment from which the rule system was invoked. **[(col. 56, line 16-30 "*Recommendation functions may take up multiple formats. The most common format are simple services to allow the site's users to provide direct feedback, positive or negative, and recommendations about the content or products on the site. By providing these services, the site may create a community where users can interact with each other, furthering the site's worth. For example, a site could allow for users to submit book reviews. The information is then available for consumption by the general public. While the technology to implement this is rather simple, the process may prove to be a little more complex. The process includes receiving input, reviewing recommendations, filtering and approving content, and then posting the review or recommendations. The lack of a filtration or review process could be devastating to a site.*")]

Regarding claim 21:

Bowman-Amuah teaches,

A computer program product for providing recommendations, the computer program product comprising a computer usable medium having computer readable code means embodied in said medium, comprising computer readable program code means for implementing the computer system in any of claims 1 to 20. **[FIG 1; (col. 4, line 48 to col. 5, line 18 "*A preferred emdodiment of a system in accordance with the present invention is preferably practiced in the con-*

text of a personal computer such as an IBM compatible personal computer, Apple Macintosh computer or UNIX based workstation. *A representative hardware environment is depicted in FIG. 1, which illustrates a typical hardware configuration of a workstation in accordance with a preferred embodiment having a central processing unit 110, such as a microprocessor, and a number of other units interconnected via a system bus 112. The workstation shown in FIG. 1 includes a Random Access Memory (RAM) 114, Read Only Memory (ROM) 116, an I/O adapter 118 for connecting peripheral devices such as disk storage units 120 to the bus 112, a user interface adapter 122 for connecting a keyboard 124, a mouse 126, a speaker 128, a microphone 132, and/or other user interface devices such as a touch screen (not shown) to the bus 112, communication adapter 134 for connecting the workstation to a communication network (e.g., a data processing network) and a display adapter 136 for connecting the bus 112 to a display device 138.* ***The workstation typically has resident thereon an operating system such as the Microsoft Windows NT or Windows/95 Operating System (OS), the IBM OS/2 operating system, the MAC OS, or UNIX operating system.*** *Those skilled in the art will appreciate that the present invention may also be implemented on platforms and operating systems other than those mentioned.* ***A preferred embodiment is written using JAVA, C, and the C++ language and utilizes object oriented programming methodology.*** *Object oriented programming (OOP) has become increasingly used to develop complex applications. As OOP moves toward the mainstream of software design and development, various software solutions require adaptation to make use of the benefits of OOP. A need exists for these principles of OOP to be applied to a messaging interface of an electronic messaging system such that a set of OOP classes and objects for the messaging interface can be provided.*")]

Regarding claim 22:

Bowman-Amuah teaches,

A method for generating a set of personalization recommendations using a rule system, and a set of empirical recommendation systems, the rule system comprising rules having predicates and actions, the method comprising the steps of:

defining an interface to permit the empirical recommendation systems in said set of empirical recommendation systems to be called from the rule system, **[FIG. 16; FIG. 17; & FIG. 18; (col. 33, line 10-67** "*FIG. 16 illustrates a flowchart for a method 1600 for interacting with a user over a network for personalizing a website. A user is identified and information about the user is collected in operations 1602 and 1604. A profile of the user is built based on the collected information and a plurality of different contents are managed in operations 1606 and 1608. The profile and the contents are analyzed in order to match attributes of the profile of the user and attributes of the contents in operation 1610. The contents which have attributes that match the attributes of the profile of the user are then selected and delivered to the user in operations 1612 and 1614. The user is allowed to manually select which of the delivered contents are depicted on a display in operation 1616. The user is also allowed in operation 1618 to selectively position the delivered contents on the display. The analysis of the profile may occur in real time. The user may also be identified by using a cookie, receiving user input, and digital certificates. As an option, a time when the user last viewed the contents may also be identified with portions of the contents that have been modified or added since the time when the user last viewed the contents being indicated. As another option, the user may also be allowed to rate the contents. Further, a potential customer may be selected from a plurality of users and an act may be performed to*

entice the potential customer to become a real customer. Also, an activity may further be conducted to retain a current customer and a demand generating application may be provided. Enterprises must respond by capitalizing on the new potential the interactive mediums offer; to reach, communicate, and interact with customers. The way enterprises interact with their customers continues to change due to demand for increased convenience, better access, higher levels of interactivity, and faster fulfillment. As a result, more customer interactions are done through electronic means (e.g., home PCs, automated teller machines, automated voice response, 800-numbers, and the Internet). Regardless of the particular medium the customer chooses, it is clear future communications will be increasingly technology-enabled and information-intensive and will provide the foundation for a continuous, two-way dialogue with customers. The benefits of new media and communications technologies to interact are numerous, enabling enterprises to provide better customer service, to capture valuable information about customer behavior and product use, and to allow greater differentiation at the point of contact. However, most next-generation customer interfaces continue to be designed to be high tech rather than high touch. The Relationship Management section of the Ecaf, shown in FIG. 17, covers applications and architecture components geared toward capitalizing on the interaction with the customer. Within relationship management, there are two main driving forces: Interactive Marketing 1702 and Personalization 1700.")]

defining a set of rules in the rule system, selected rules in the set of rules comprising calls using the interface to the empirical recommendation systems, and invoking the rule system to provide a set of personalization recommendations by evaluating rule predicates and firing rule actions in the rule system and to call one or more of the empirical recommendation systems as defined in

the fired rile actions. **[(col. 49, line 30-32 "***A Personalization Matching Factor (PMF) is the building block for a rule. It is the information required to perform the matching aspect of the personalization process.***") & (col. 49, line 47-49 "***PMFs should be restricted to information that can be realistically captured by the site as well as information that is reliable and accurate.***") & (col. 50, line 21-29 "***The PMFs are the building blocks for rules and matching logic. Unlike SQL extensions, there is no industry standard method for accessing `Web` content and creating rules. Some approaches are detailed below. Simple Conditional Rules--The simplest process is to define a clear-cut set of rules against which to evaluate the PMFs. These rules are generally simple and have only a few conditions to evaluate.***") & FIG. 16 illustrates a flowchart for a method for interacting with a user over a network for personalizing a website in accordance with an embodiment of the present invention; FIG. 17 depicts the Relationship Management section of the eCommerce Application Framework in accordance with one embodiment of the present invention; FIG. 18 illustrates a conceptual personalization architecture for implementing the Relationship Management section of the eCommerce Application Framework)]**

Regarding claim 23:

Bowman-Amuah teaches,

The method of claim 22 where the step of calling an empirical recommendation system defined in a fired rule action further comprises the step of establishing an event-listener connection to the empirical recommendation system to permit data to be provided to the empirical recommendation system. **[(col. 52, line 22-34 "***Canned Queries--A system of canned queries allows the user to choose only certain actions that have been pre-determined for the user. The***

queries only give the user the options listed, and do not change over time. *The examples above are mainly site controlled. The site either has a pre-defined rule or matching logic that will execute. The site is responsible for determining what has been learned from the interaction, what is enabled based on the knowledge gained, what additional information will provide additional insight.* ***Where possible, the users should be allowed to define the rules and matching logic or the content they wish to view. Provide the user the structure to create a rule or define a query.***") **& (col. 37, line 01-24** "*Most of the personalization techniques described above are interactive personalization techniques. Content and information is personalized for the user in real time--while the user interacts with the application or site. Some forms of personalization can also be used in a non-interactive, or "push" mode "Push" (or "server-push") is where the delivery of information to a user on the Web is triggered and initiated by the information server rather than by the user. In fact, the information pushed from a server to a user actually comes as the result of a subscription-like standing request created by the user and either stored on the server or on their local machine. This program captures and stores the user's profile locally and then periodically initiates requests for information on the user's behalf from the server.*")]
ontent they wish to view. Provide the user the structure to create a rule or define a query.")]

Regarding claim 24:

Bowman-Amuah teaches,

The method of claim 23 in which the step of defining rules in the rule system further comprises the step of defining preprocessing rules for preprocessing event data before passing an event to the empirical recommendation system. **[(col. 52, line 22-34** "*Canned Queries--A system of*

canned queries allows the user to choose only certain actions that have been pre-determined for the user. The queries only give the user the options listed, and do not change over time. The examples above are mainly site controlled. ***The site either has a pre-defined rule or matching logic that will execute.*** *The site is responsible for determining what has been learned from the interaction, what is enabled based on the knowledge gained, what additional information will provide additional insight. Where possible, the users should be allowed to define the rules and matching logic or the content they wish to view. Provide the user the structure to create a rule or define a query.*")]

Regarding claim 25:

Bowman-Amuah teaches,

The method of claim 23 in which the step of defining rules in the rule system further comprises the step of defining post-processing rules for post-processing recommendations provided by the empirical recommendation system. **[(col. 52, line 22-34** "*Canned Queries--A system of canned queries allows the user to choose only certain actions that have been pre-determined for the user. The queries only give the user the options listed, and do not change over time. The examples above are mainly site controlled. The site either has a pre-defined rule or matching logic that will execute.* ***The site is responsible for determining what has been learned from the interaction, what is enabled based on the knowledge gained, what additional information will provide additional insight.*** *Where possible, the users should be allowed to define the rules and matching logic or the content they wish to view. Provide the user the structure to create a rule or define a query.*")]

Regarding claim 26:

Bowman-Amuah teaches,

A computer program product for providing recommendations, the computer program product comprising a computer usable medium having computer readable code means embodied in said medium, comprising computer readable program code means for implementing the method of claims 22, 23, 24 or 25. **[FIG 1; (col. 4, line 48 to col. 5, line 18 "*A preferred embodiment of a system in accordance with the present invention is preferably practiced in the context of a personal computer such as an IBM compatible personal computer, Apple Macintosh computer or UNIX based workstation*. *A representative hardware environment is depicted in FIG. 1, which illustrates a typical hardware configuration of a workstation in accordance with a preferred embodiment having a central processing unit 110, such as a microprocessor, and a number of other units interconnected via a system bus 112. The workstation shown in FIG. 1 includes a Random Access Memory (RAM) 114, Read Only Memory (ROM) 116, an I/O adapter 118 for connecting peripheral devices such as disk storage units 120 to the bus 112, a user interface adapter 122 for connecting a keyboard 124, a mouse 126, a speaker 128, a microphone 132, and/or other user interface devices such as a touch screen (not shown) to the bus 112, communication adapter 134 for connecting the workstation to a communication network (e.g., a data processing network) and a display adapter 136 for connecting the bus 112 to a display device 138. **The workstation typically has resident thereon an operating system such as the Microsoft Windows NT or Windows/95 Operating System (OS), the IBM OS/2 operating system, the MAC OS, or UNIX operating system**. Those skilled in the art will appreciate that the present invention may also be implemented on platforms and operating systems other than*

those mentioned. ***A preferred embodiment is written using JAVA, C, and the C++ language and utilizes object oriented programming methodology****. Object oriented programming (OOP) has become increasingly used to develop complex applications. As OOP moves toward the mainstream of software design and development, various software solutions require adaptation to make use of the benefits of OOP. A need exists for these principles of OOP to be applied to a messaging interface of an electronic messaging system such that a set of OOP classes and objects for the messaging interface can be provided.*"**)]**

Regarding claim 27:

Bowman-Amuah teaches,

A computer program comprising computer program code means adapted to perform the steps of any of claims 22 to 25 when said program is run on a computer system. **[(col. 5, line 08-18** "***A preferred embodiment is written using JAVA, C, and the C++ language and utilizes object oriented programming methodology****. Object oriented programming (OOP) has become increasingly used to develop complex applications. As OOP moves toward the mainstream of software design and development, various software solutions require adaptation to make use of the benefits of OOP. A need exists for these principles of OOP to be applied to a messaging interface of an electronic messaging system such that a set of OOP classes and objects for the messaging interface can be provided.*"**)]**

Conclusion

12. The prior art made of record and (listed of form **PTO-892**) not relied upon is considered pertinent to applicant's disclosure as follows. Applicant or applicant's representative is respectfully reminded that in process of patent prosecution i.e., amending of claims in response to a rejection of claims set forth by the Examiner per Title 35 U.S.C. The patentable novelty must be clearly shown in view of the state of the art disclosed by the references cited and any objections made. Moreover, applicant or applicant's representative must clearly show how the amendments avoid or overcome such references and objections. *See* **37 CFR § 1.111(c)**.

Correspondence Information

13. Any inquiries concerning this communication or earlier communications from the examiner should be directed to **Michael B. Holmes** who may be reached via telephone at **(703) 308-6280**. The examiner can normally be reached Monday through Friday between 8:00 a.m. and 5:00 p.m. eastern standard time.

If you need to send the Examiner, a facsimile transmission regarding After Final issues, please send it to **(703) 746-7238**. If you need to send an Official facsimile transmission, please send it to **(703) 746-7239**. If you would like to send a Non-Official (draft) facsimile transmission the fax is **(703) 746-7240**. If attempts to reach the examiner by telephone are unsuccessful, the **Examiner's Supervisor, Anil Khatri**, may be reached at **(703) 305-0282**.

Any response to this office action should be mailed too:

Director of Patents and Trademarks Washington, D.C. 20231. Hand-delivered responses should be delivered to the Receptionist, located on the fourth floor of **Crystal Park II, 2121 Crystal Drive Arlington, Virginia.**

Michael B. Holmes
Patent Examiner
Artificial Intelligence
Art Unit 2121
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